

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NE-50-AD; Amendment 39-13681; AD 2004-13-01]

RIN 2120-AA64

Airworthiness Directives; Dowty Aerospace Propellers Type R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13 Propeller Assemblies

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) that applies to Dowty Aerospace Propellers (Dowty) Type R334/4-82-F/13 propeller assemblies. That AD currently requires a one-time ultrasonic inspection of propeller hubs, part number (P/N) 660709201, for cracks. This amendment requires initial and repetitive ultrasonic inspections of propeller hubs, P/N 660709201, that are installed on airplanes, and for hubs and propellers in storage, initial ultrasonic inspection of propeller hubs before placing in service. Propeller hubs, P/N 660709201, are installed on Type R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13 propeller assemblies. This amendment results from the manufacturer's reevaluation of potential hub failure on Type R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13 propeller assemblies. We are issuing this AD to prevent propeller hub failure due to cracks in the hub, which could result in loss of control of the airplane.

DATES: Effective July 27, 2004. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 27, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Dowty Aerospace Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL 29QN, UK; telephone 44 (0) 1452 716000; fax 44 (0) 1452 716001. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Frank Walsh, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, telephone (781) 238-7158, fax (781) 238-7170.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2002-01-28, Amendment 39-12623 (67 FR 4351, January 30, 2002), that applies to Dowty Type R334/4-82-F/13 propeller assemblies was published in the Federal Register on April 28, 2003 (68 FR 22339). That action proposed to require initial and repetitive ultrasonic inspections of propeller hubs, P/N 660709201, that are installed on airplanes, and for hubs and propellers in storage, initial ultrasonic inspection of propeller hubs before placing in service. That action proposed to perform inspections in accordance with Dowty Mandatory Service Bulletin (MSB) No. 61-1119, Revision 3, dated March 8, 2002; MSB No. 61-1124, Revision 1, dated October 8, 2002; MSB No. 61-1125, Revision 1, dated October 9, 2002; and MSB No. 61-1126, Revision 1, dated October 9, 2002. The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (UK), classified these service bulletins as mandatory and issued CAA UK AD No. 003-11-2001, dated November 30, 2001; CAA UK AD No. 009-05-2002, dated April 15, 2003; CAA UK AD No. 010-05-2002, dated April 15, 2003; and CAA UK AD No. 011-05-2002, dated April 15, 2003 in order to ensure the airworthiness of these Dowty Propellers in the UK.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Increase the Initial Inspection Interval

One commenter states that the initial inspection interval in the NPRM of 50 hours is unrealistically short to complete the inspection on a large, geographically wide-spread fleet. The commenter believes that the initial inspection interval should be increased to 200 hours.

We do not agree that we need to change the compliance time for the initial inspection. Dowty issued an MSB on May 7, 2002, and directed operators to conduct the initial inspection. Dowty also stated that the calendar compliance time for that inspection was within six months after the issue date of that MSB. Based on the issuance date of that MSB, all propellers should already be inspected. We have not changed the AD.

Request To Increase the Repetitive Inspection Interval

One commenter requests that the repetitive inspection interval in the NPRM be increased from 1,000 hours to 2,000 hours based on the fact that only one crack was found in their fleet.

We do not agree. Dowty based the compliance time on an engineering evaluation of the 16 cracks found by this inspection. Five cracks were found on the same propeller model as flown by the commenter. We have not changed the AD.

Credit for Previous Inspections on All Models

One commenter states that the previous inspections on the propeller should be applicable to all models, not just the R334/4-82-F13 propeller.

We agree. We have changed the Applicability in the Regulatory text of the AD by adding Dowty Propeller Types R321/4-82-F/8, R324/4-82-F/9, and R333/4-82-F/12.

Request To Clarify the Economic Analysis Paragraph

One commenter states that the FAA underestimated the cost of the AD to U.S. operators. The commenter also provides additional information to better estimate the cost of the inspection.

We agree. Our revised estimate retains the 11 work hours per propeller and modifies the part cost from \$1,650 per propeller to \$300 per propeller. In addition, we increased the estimated number of airplanes from 10 airplanes to 50 airplanes and raised the labor rate to \$65 per hour. Based on these revisions, the total cost for the inspection for U.S. operators will be about \$126,875 for the fleet of affected airplanes.

Clarification of CAA ADs Related to This AD

We inadvertently left out three CAA UK ADs in Note 3 of the NRPM supersedure. We have added the three CAA UK ADs in Note 3 of the AD.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Bilateral Agreement Information

These propeller models are manufactured in the UK and are Type certificated for operation in the United States under the provisions of Section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Economic Analysis

There are about 275 airplanes with propellers of the affected design in the worldwide fleet. The FAA estimates that there are about 125 Dowty Propellers Type R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13 installed on airplanes of U.S. registry that would be affected by this AD. The FAA also estimates that it would take approximately 11 work hours per propeller to perform one inspection and replacement, and that the average labor rate is \$65 per work hour. Required shipping and parts would cost approximately \$300 per propeller. Based on these figures, the total cost of the AD to known U.S. operators is estimated to be \$126,875.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of

the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

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Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-12623 (67 FR 4351, January 30, 2002) and by adding a new airworthiness directive, Amendment 39-13681, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-13-01 Dowty Aerospace Propellers: Amendment 39-13681. Docket No. 2001-NE-50-AD.
Supersedes AD 2002-01-28, Amendment 39-12623.

Applicability

This airworthiness directive (AD) applies to Dowty Aerospace Propellers (Dowty) Type R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13 propeller assemblies with propeller hubs part number (P/N) 660709201. These propeller assemblies are installed on, but not limited to, Construcciones Aeronauticas, S.A. (CASA) 212, British Aerospace Regional Aircraft Jetstream Models 3101 and 3201, Fairchild Aircraft, Inc., Merlin IIIC, and Merlin IVC/Metro III airplanes.

Note 1: This AD applies to each propeller identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For propellers that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required as indicated, unless already done.

To prevent propeller hub failure due to cracks in the hub, which could result in loss of control of the airplane, do the following:

Initial Ultrasonic Inspection

(a) Within 50 flight hours time-in-service (TIS) after the effective date of this AD, or within 60 days after the effective date of this AD, whichever occurs earlier, perform an initial ultrasonic inspection of the rear wall of the rear half of the propeller hub for cracks in accordance with Appendix A of the applicable Dowty Mandatory Service Bulletin (MSB) listed in the following Table 1:

TABLE 1.—APPLICABLE MSB FOR P ROPELLER TYPE

Propeller assembly type	Applicable MSB
(1) R334/4-82-F/13.	MSB No. 61-1119, Revision 3, dated March 8, 2002.
(2) R333/4-82-F/12.	MSB No. 61-1124, Revision 1, dated October 8, 2002.
(3) R321/4-82-F/8.	MSB No. 61-1125, Revision 1, dated October 9, 2002.
(4) R324/4-82-F/9.	MSB No. 61-1126, Revision 1, dated October 9, 2002

(b) For hubs and propellers in storage, perform an initial ultrasonic inspection of the rear wall of the rear half of the propeller hub for cracks, before placing in service, in accordance with Appendix A of the applicable Dowty MSB listed in Table 1 of this AD.

(c) Propeller hubs, P/N 660709201, used on Type R334/4-82-F/13 propeller assemblies that have been previously inspected using a Dowty MSB listed in Table 1 or earlier issue of those MSBs, are considered to be in compliance with paragraph (a) of this AD.

Repetitive Ultrasonic Inspections

(d) Thereafter, within 1,000 flight hours TIS after each ultrasonic inspection, perform an ultrasonic inspection of the rear wall of the rear half of the propeller hub for cracks in accordance with Appendix A of the applicable Dowty MSB listed in Table 1 of this AD.

Inspection Reporting Requirements

(e) For each inspection, record the inspection data on a copy of Appendix B of the applicable MSB listed in Table 1 of this AD, and report the findings to the Manager, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299 within 10 days after the inspection. Reporting requirements have been approved by the Office of Management and Budget (OMB) and assigned OMB control number 2120-0056.

Alternative Methods of Compliance

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Boston Aircraft Certification Office. Operators must submit their request through an appropriate FAA principal Maintenance Inspector, who may add comments and then send it to the Manager, Boston Aircraft Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Boston Aircraft Certification Office.

Special Flight Permits

(g) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated by Reference

(h) The inspections must be done in accordance with the following Dowty Aerospace Propellers mandatory service bulletins:

Document No.	Pages	Revision	Date
MSB No. 61-1119	1	3	Mar. 8, 2002.
	2	2	Dec. 6, 2001.
Appendix A	1	1	Nov. 27, 2001.
	2	Original	Nov. 1, 2001.
	3-6	1	Nov. 27, 2001.
Appendix B	1	Original	Nov. 1, 2001.
Appendix C	All	Original	Nov. 27, 2001.
Appendix D	All	Original	Dec. 6, 2001.
Total pages: 29.			
MSB No. 61-1124	1	1	Oct. 8, 2002.
	2-3	Original	May 7, 2002.
Appendix A	All	Original	May 7, 2002.
Appendix B	All	Original	May 7, 2002.
Appendix C	All	Original	May 7, 2002.
Appendix D	All	Original	May 7, 2002.
Total pages: 30.			
MSB No. 61-1125	1	1	Oct. 9, 2002.
	2-3	Original	May 7, 2002.
Appendix A	All	Original	May 7, 2002.
Appendix B	All	Original	May 7, 2002.
Appendix C	All	Original	May 7, 2002.
Appendix D	All	Original	May 7, 2002.
Total pages: 30.			
MSB No. 61-1126	1	1	Oct. 9, 2002.
	2-3	Original	May 7, 2002.
Appendix A	All	Original	May 7, 2002.
Appendix B	All	Original	May 7, 2002.
Appendix C	All	Original	May 7, 2002.
Appendix D	All	Original	May 7, 2002.
Total pages: 30.			

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Dowty Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL 29QN, UK; telephone 44 (0) 1452 716000; fax 44 (0) 1452 716001. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Note 3: The subject of this AD is also addressed in CAA UK AD No. 003-11-2001, dated November 30, 2001; CAA UK AD No. 009-05-2002, dated April 15, 2003; CAA UK AD No. 010-05-2002, dated April 15, 2003; and CAA UK AD No. 011-05-2002, dated April 15, 2003.

Effective Date

(i) This amendment becomes effective on July 27, 2004.

Issued in Burlington, Massachusetts, on June 10, 2004.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 04-13773 Filed 6-21-04; 8:45 am]

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